

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Previously Presented) A method, comprising:

configuring, by a switch, a plurality of repeaters operating at a substantially identical communication frequency to coordinate transmissions of first and second data packets to first and second mobile stations, respectively, that are wirelessly communicatively coupled to a repeater from among the plurality of repeaters, the first data packet being characterized as having a first address that corresponds to the first mobile station and the second data packet being characterized as having a second address that corresponds to the second mobile station;

performing, by the switch, an address translation on the first and second addresses to identify a switch port from among a plurality of switch ports that corresponds to the repeater;

determining, by the switch, whether wirelessly transmitting the first and second data packets from the repeater to the first and second mobile stations, respectively, will create interference between the first and second data packets; and

transmitting, by the switch, the first and second data packets through the switch port to the repeater at different times when it is determined that wirelessly transmitting the first and second data packets from the repeater will create interference.

2. (Previously Presented) The method of claim 1, further comprising:

operating the plurality of repeaters as a communication channel in accordance with a wireless communication protocol.

3. (Cancelled)

4. (Previously Presented) The method of claim 1, wherein the step of transmitting the first and second data packets through the switch port comprises: scheduling, by the switch, transmissions of the first and second data packets through the switch port to avoid interference that would prevent the first and second data packets from being received by the first and second mobile stations, respectively.

5. (Previously Presented) The method of claim 4, wherein the step of transmitting the first and second data packets through the switch port further comprises: transmitting the first and second data packets through the switch port without performing the scheduling, if transmitting the first and second data packets from the repeater to the first and second mobile stations, respectively, will not create interference between the first and second data packets.

6. (Currently Amended) The method of claim 5, wherein [[if]] transmitting the first and second data packets from the repeater to the first and second mobile stations, respectively, will create interference between the first and second data packets, and wherein the step of transmitting the first and second data packets through the switch port further comprises:

transmitting the first and second data packets through the switch port according to the scheduling.

7. (Previously Presented) The method of claim 1, further comprising:
coordinately scheduling, at the plurality of repeaters, transmissions of the first and second data packets to avoid interference that would prevent one or both of the transmissions from being received by the first and second mobile stations when it is determined that wirelessly transmitting the first and second data packets from the repeater will create interference.

8. (Previously Presented) The method of claim 1, wherein the step of determining whether wirelessly transmitting the first and second data packets comprises:
determining whether the first and second data packets are to be transmitted substantially simultaneously to the first and second mobile stations, respectively, and
wherein the step of transmitting the first and second data packets through the switch port comprises:

transmitting the first and second data packets through the switch port at different time slots to avoid the interference if the first and second data packets are to be transmitted substantially simultaneously.

9. (Currently Amended) The method of claim 1, wherein the step of determining whether wirelessly transmitting the first and second data packets will create interference comprises:

maintaining in a ~~first~~ database information regarding whether communications of the repeater will interfere with communications of another repeater from among the plurality of repeaters.

10. (Currently Amended) The method of claim 9, wherein the step of determining whether wirelessly transmitting the first and second data packets will create interference further comprises:

examining the ~~first~~ database to determine whether the communications of the repeater will interfere with the communications of the another repeater, and

wherein the step of transmitting the first and second data packets through the switch port comprises:

delaying one of the first and second data packets to be transmitted by the repeater to its respective mobile station if the communications of the repeater will interfere with the communications of the another repeater.

11. (Previously Presented) The method of claim 9, further comprising:
periodically transmitting, by the switch, a test packet through the switch port to collect interference information.

12. (Currently Amended) The method of claim 1, wherein the step of determining whether wirelessly transmitting the first and second data packets will create interference comprises:

maintaining in a ~~second~~ database a list of mobile stations and a corresponding plurality of repeaters that last received transmissions from the mobile stations.

13. (Currently Amended) The method of claim 12, wherein the step of determining whether wirelessly transmitting the first and second data packets will create interference further comprises:

examining the ~~second~~ database to determine whether the repeater will interfere with transmissions from another repeater from among the plurality of repeaters when transmitting substantially currently, and

wherein the step of transmitting the first and second data packets through the switch port comprises:

delaying transmissions of one of the first and second packets to its respective mobile station if the transmissions from the repeater will interfere with the transmissions from the another repeater.

14. (Previously Presented) The method of claim 1, wherein the first and second addresses are a first destination internet protocol (IP) address that corresponds to the first mobile station and a second destination IP address that corresponds to the second mobile station, respectively, wherein the repeater is characterized as having a Ethernet Media Access Control (MAC) address from among a plurality of Ethernet MAC addresses, and wherein the step of performing the address translation on the first and second addresses comprises:

performing the address translation on the first and second destination IP addresses to determine the Ethernet MAC address of the repeater from among the plurality of Ethernet MAC addresses; and

identifying the switch port from among the plurality of switch ports that corresponds to the Ethernet MAC address of the repeater.

15. (Previously Presented) A method, comprising:

receiving, by a switch, first and second data packets designated for transmission to a first mobile station and a second mobile station, respectively, via a plurality of repeaters transmitting on a substantially identical communication frequency, the first data packet being characterized as having a first address that corresponds to the first mobile station and the second data packet being characterized as having a second address that corresponds to the second mobile station;

performing, by the switch, an address translation on the first and second addresses to identify a switch port from among a plurality of switch ports that corresponds to the repeater;

detecting, by the switch, whether overlapping transmissions of the first and second data packets will result in interference that would prevent completion of transmissions of the first and second data packets; and

scheduling, by the switch, the transmissions of the first and second data packets via the switch port to avoid the interference if the overlapping transmissions of the first and second data packets will result in interference that would prevent completion of the transmissions of the first and second data packets.

16. (Previously Presented) The method of claim 15, wherein if the overlapping transmissions of the first and second data packets will not result in interference that would prevent completion of the transmissions of the first and second data packets, the method further comprising:

transmitting, by the switch, the first and second data packets through the switch port to the repeater without delay.

17. (Previously Presented) The method of claim 15, wherein the plurality of repeaters are configured to operate as a communication channel in accordance with a wireless communication protocol.

18. (Cancelled)

19. (Previously Presented) The method of claim 15, wherein the first and second addresses are a first destination internet protocol (IP) address that corresponds to the first mobile station and a second destination IP address that corresponds to the second mobile station, respectively, wherein the repeater is characterized as having a Ethernet Media Access Control (MAC) address from among a plurality of Ethernet MAC addresses, and wherein the step of performing the address translation on the first and second addresses comprises:

performing the address translation on the first and second destination IP addresses to determine the Ethernet MAC address of the repeater from among the

plurality of Ethernet MAC addresses; and identifying the switch port from among the plurality of switch ports that corresponds to the Ethernet MAC address of the repeater.

20. (Previously Presented) A method, comprising:

receiving, by a switch coupled to a plurality of repeaters, a data packet destined to a mobile station, the data packet being characterized as having an address that corresponds to the mobile station;

performing, by the switch, an address translation on the address to identify a switch port from among a plurality of switch ports that corresponds to a repeater from among the plurality of repeaters that is wirelessly communicatively coupled to the mobile station;

determining, by the switch, whether immediately transmitting the packet from the repeater to the mobile station will cause an interference with other communications destined to the mobile station; and

transmitting, by the switch, the packet through the switch port to the repeater when it is determined that immediately transmitting the packet will not cause interference.

21. (Previously Presented) The method of claim 20, wherein the plurality of repeaters are configured to operate as a communication channel in accordance with a wireless communication protocol.

22. (Cancelled)

23. (Previously Presented) The method of claim 20, further comprising:
delaying transmission of the packet through the switch port if it is determined that
immediately transmitting the packet would cause the interference.

24. (Currently Amended) The method of claim 23, wherein the step of
delaying the transmission of the packet comprises:

scheduling the transmission of the packet at an alternative time slot where no
other communications destined to the mobile station are occurring if it is determined that
immediately transmitting the packet would [[not]] cause the interference.

25. (Previously Presented) The method of claim 23, further comprising:
transmitting the packet through the switch port without delay when it is
determined that immediately transmitting the packet will not cause the interference.

26. (Cancelled)

27. (Previously Presented) The method of claim 20, wherein the address is a
destination internet protocol (IP) address that corresponds to the mobile station, wherein
the repeater is characterized as having a Ethernet Media Access Control (MAC) address
from among a plurality of Ethernet MAC addresses, and wherein the step of performing
the address translation on the address comprises:

performing, by the switch, the address translation on the destination IP address to determine the Ethernet MAC address of the repeater from among the plurality of Ethernet MAC addresses; and

identifying the switch port from among the plurality of switch ports that corresponds to the Ethernet MAC address of the repeater.

28. (Original) The method of claim 27, wherein the address translation is performed via a table stored within the switch.

29. (Currently Amended) A system, comprising:
a plurality of communication devices coupled to a switch, the plurality of communication devices communicating wirelessly over substantially the same communication frequency with a plurality of mobile stations,

wherein the switch is configured to coordinate transmissions of first and second data packets to first and second mobile stations from among the plurality of mobile stations, the first data packet being characterized as having a first address that corresponds to the first mobile station and the second data packet being characterized as having a second address that corresponds to the second mobile station, the coordinating including:

performing, by the switch, an address translation on the first and second addresses to identify a switch port from among a plurality of switch ports that corresponds to a communication device from among the plurality of communication devicee devices;

determining, by the switch, whether wirelessly transmitting the first and second data packets from the communication device to the first and second mobile stations, respectively, will create interference between the first and second data packets; and

transmitting, by the switch, the first and second data packets through the switch port to the communication device at different times when it is determined that wirelessly transmitting the first and second data packets from the communication device will create interference.

30. (Previously Presented) The system of claim 29, wherein the switch is configured to manage communications between the plurality of communication devices and the plurality of mobile stations.

31. (Previously Presented) The system of claim 29, wherein the plurality of communication devices are configured to operate as a communication channel in accordance with a wireless communication protocol.

32. (Cancelled)

33. (Previously Presented) An apparatus, comprising:
means for configuring a plurality of repeaters operating at a substantially identical frequency to coordinate transmissions of first and second data packets to first and second mobile stations, respectively, that are wirelessly communicatively coupled to

a repeater from among the plurality of repeaters, the first data packet being characterized as having a first address that corresponds to the first mobile station and the second data packet being characterized as having a second address that corresponds to the second mobile station;

means for performing an address translation on the first and second addresses to identify a switch port from among a plurality of switch ports that corresponds to the repeater;

means for determining whether wirelessly transmitting the first and second data packets from the repeater to the first and second mobile stations, respectively, will create interference between the first and second data packets; and

means for transmitting the first and second data packets through the switch port to the repeater at different times when it is determined that wirelessly transmitting the first and second data packets from the repeater will create interference.

34. (Previously Presented) An apparatus, comprising:

means for receiving first and second data packets designated for transmission to first and second mobile stations, respectively, via a plurality of repeaters transmitting on a substantially identical communication frequency, the first data packet being characterized as having a first address that corresponds to the first mobile station and the second data packet being characterized as having a second address that corresponds to the second mobile station;

means for performing an address translation on the first and second addresses to identify a switch port from among a plurality of switch ports that corresponds to the repeater;

means for detecting whether overlapping transmissions of the first and second data packets will result in interference that would prevent completion of transmissions of the first and second data packets; and

means for scheduling the transmissions of the first and second data packets via the switch port to avoid the interference if the overlapping transmissions of the first and second data packets will result in interference that would prevent completion of the transmissions of the first and second data packets.

35. (Previously Presented) An apparatus, comprising:

means for receiving a packet destined to a mobile station, the data packet being characterized as having an address that corresponds to the mobile station;

means for performing an address translation on the address to identify a switch port from among a plurality of switch ports that corresponds to a repeater from among a plurality of repeaters that is wirelessly communicatively coupled to the mobile station, the plurality of repeaters being coupled to the switch;

means for determining whether immediately transmitting the packet from the repeater to the mobile station will cause an interference with other communications destined to the mobile station; and

means for transmitting the packet through the switch port to the repeater when it is determined that immediately transmitting the packet will not cause interference.